

Kura Oncology, Inc.  
11119 N. Torrey Pines Road  
Suite 125  
La Jolla, CA 92037  
(858) 500-8800

July 17, 2015

VIA EDGAR

United States Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Washington, D.C. 20549  
Attn: Jeffrey P. Riedler

**Re: Kura Oncology, Inc.**  
**Registration Statement on Form S-1**  
**Filed: April 17, 2015**  
**File No. 333-203503**

Ladies and Gentlemen:

Kura Oncology, Inc. (the "**Registrant**") hereby requests that the Securities and Exchange Commission (the "**Commission**") take appropriate action to cause the above-referenced Registration Statement on Form S-1 to become effective at 4:00 p.m. Eastern Time on Tuesday, July 21, 2015, or as soon thereafter as is practicable. The Registrant also hereby requests a copy of the written order verifying the effective date.

In connection with this request, the Registrant hereby acknowledges that:

- should the Commission or the staff of the Commission (the "**Staff**"), acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Registrant from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the Registrant may not assert Staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Sincerely,

**KURA ONCOLOGY, INC.**

By: /s/ Heidi Henson

Heidi Henson

Chief Financial Officer

cc: Charles J. Bair, Cooley LLP  
James Pennington, Cooley LLP